

===== WPI =====

- TI - Automatic canned food raising apparatus e.g. for vending machine - incorporates four goods movement apparatus which convey canned food to vending machine near coin insertion opening
- AB - J09102066 The automatic canned food raising apparatus consists of four goods movement apparatus, which are controlled. The canned food is moved to the extraction space (50) in the vending machine near the coin insertion opening. The required canned foods are requested on the operational panel. Then a series of mini-robot control operation is performed.
- The first goods movement apparatus moves the canned food (20) to a press chamber (28) at the lowermost point. The press chamber shutter (26) is opened by means of an electro-magnetic solenoid (36) and a press spring (32). The second goods movement apparatus conveys the canned food upwards by means of a hook (40) attached to the conveyance belts. The third goods movement apparatus moves the canned food into the extraction shutter (48) provided at the lower part of the extraction opening. Then the fourth goods movement apparatus guides the canned food to the extraction space near the vending machine.
 - ADVANTAGE - Simplifies mechanism. Enables miniaturisation. Reduces cost. Facilitates vending of various goods. Results in flexible design.
 - (Dwg.2/6)
- PN - JP9102066 A 970415 DW9725 G07F9/00 010pp
- PR - JP910296710 910728
- PA - (SHIM-I) SHIMIZU T
- MC - T05-H04 T05-H08C
- DC - T05
- IC - G07F9/00 ;G07F9/10
- AN - 97-278301 [25]

===== PAJ =====

- TI - AUTOMATIC LIFTING DEVICE FOR CAN AND THE LIKE IN AUTOMATIC VENDING MACHINE .
- AB - PURPOSE: To automatically and securely lift up the products of cans to a product take-out port provided at a position from which the product can be easily taken out, such as a place near a coin supply port, in an automatic vending machine.
- CONSTITUTION: A first product shift device guiding the dropped can to a pressure room 28 at an end part and a lowermost part by a roller group provided obliquely and a second product shift device which opens a pressure room shutter 26 by the installation of a pressure devices by an electromagnetic solenoid 36 and a pressure spring 32 and press-guides the can to a hook 40 installed to a lift up belt 38 in cooperation with opening, a third product shift device lifting up and guiding the can to the lower part of a take-out room 50 positioned at an upper part by the installation of a lift up device consisting of two belts and a fourth product shift device which opens/ closes the take-out room shutter 48 at the lower part of the take-out room 50 and guides the can to the take-out room 50 are provided. The four product shift devices are sequentially and integrally controlled. Thus, the shift of the product positioned near the coin supply port to the take-out room 50 after the panel of an operation surface is operated can speedily and securely be executed by the constitution of a series of mini robot control.
- PN - JP9102066 A 970415
- PD - 97-04-15
- ABD - 970829
- ABV - 097008
- AP - JP910296710 910728
- PA - SHIMIZU TAKAHISA
- IN - SHIMIZU TAKAHISA
- I - G07F9/00; G07F9/10

